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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,002	11/26/2003	Tianbing Brian Teng	7293-056	9568
20575	7590	10/23/2006	EXAMINER	
MARGER JOHNSON & MCCOLLOM, P.C. 210 SW MORRISON STREET, SUITE 400 PORTLAND, OR 97204			CRUZ, MAGDA	
			ART UNIT	PAPER NUMBER
			2851	

DATE MAILED: 10/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/723,002

Applicant(s)

TENG ET AL.

Examiner

Magda Cruz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11/26/03 & 07/13/05 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                                     |                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                         | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                                | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>08/14/2006</u> . | 6) <input type="checkbox"/> Other: _____                                                |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-7, 14-19, 26-28 and 32-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Kobayashi.

Kobayashi (US Patent Number 6,056,408) discloses:

- Regarding claim 1, selecting a plurality of corners (Figure 5, element 6) within an original image projected as a distorted image on a projection surface (Figure 5, element 3) using a graphical user interface (Figure 5, element 21); and predistorting the original image responsive to the selecting where the predistorted image exhibits no distortion when projected on the projection surface (column 6, lines 25-30).
- Regarding claims 2, 15 and 27, aligning a center (i.e. barycenter position of the coordinates) of the original projected image with a center of the projection surface (column 7, lines 30-31).
- Regarding claims 3 and 16, the distorting is responsive to the aligning (i.e. correcting a positional deviation; column 8, lines 20-24; and column 7, lines 56-61).

- Regarding claim 4, the aligning is before the selecting (i.e. positional deviation vector C; column 7, lines 43-44).
- Regarding claims 5 and 17, fixing a center (i.e. barycenter A0 and B0) of the predistorted image coincident with the center of the projection surface (column 7, lines 34-42).
- Regarding claims 6, 18 and 32, the selecting comprises selecting two corners of the image (i.e. two marks "+" of the marker group, element 6; column 5, lines 38-40).
- Regarding claims 7, 19 and 33, the selecting comprises selecting four corners of the image (i.e. four marks "+" of the projected image; column 5, lines 41-44).
- Regarding claim 14, means for graphically selecting a plurality of corners (i.e. four marks "+") within an original image (Figure 1, element 5) as projected distorted on a projection surface (Figure 1, element 3); and means for distorting the image responsive to the plurality of comers (column 5, lines 35-40).
- Regarding claim 26, a user interface (Figure 5, element 21) to allow a user to graphically identify a plurality of corners (i.e. "+" marks in Figure 5) of an original image (Figure 5, element 5) as projected as a distorted image on a surface (Figure 5, element 3); a controller (Figure 5, element 8) to distort the image responsive to the plurality of comers (i.e. "+" marks in Figure 5).

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- Regarding claim 28, the interface (Figure 5, element 21) is a graphical user interface (column 9, lines 52-54).
- Regarding claim 34, the controller (i.e. control device; element 8) generates a distorted image before projecting the distorted image on the surface (column 6, lines 39-46).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 8 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi in view of West et al.

Kobayashi (US Patent Number 6,056,408) teaches the salient features of the present invention as explained above, except: using an on screen display means to do the selecting.

West et al. (US Patent Number 6,339,434 B1) disclose the use of an on screen display means to do the selecting (i.e. OSD controller, element 145).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the on screen display disclosed by West et al. in combination with Kobayashi's invention for the purpose of allowing transparent and semi-transparent overlays to be displayed (column 10, lines 19-20).

5. Claims 9 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi in view of West et al.

Kobayashi (US Patent Number 6,056,408) teaches the salient features of the present invention as explained above, except: predistorting the image comprises scaling the image.

West et al. (US Patent Number 6,339,434 B1) disclose predistorting (i.e. size adjustments) the image comprises scaling the image (column 2, lines 26-29).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to scaling the image as shown by West et al. in combination with Kobayashi's invention for the purpose of improving the image resizing (West et al., column 2, lines 26-27).

6. Claims 11 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi in view of West et al.

Kobayashi (US Patent Number 6,056,408) teaches the salient features of the present invention as explained above, except: the vertically scaling comprises calculating vertical scalar registers.

West et al. (US Patent Number 6,339,434 B1) disclose vertically scaling by calculating vertical scalar registers (column 7, lines 1-3 and 6-9).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to vertically scaling by calculating vertical scalar registers as shown by West et al. in combination with Kobayashi's invention for the purpose of improving the image resizing (West et al., column 2, lines 26-27).

7. Claims 13 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi in view of West et al.

Kobayashi (US Patent Number 6,056,408) teaches the salient features of the present invention as explained above, except: the horizontally scaling comprises calculating horizontal scalar registers.

West et al. (US Patent Number 6,339,434 B1) disclose horizontally scaling by calculating horizontal scalar registers (column 7, lines 64-65).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to horizontally scaling by calculating horizontal scalar registers as shown by West et al. in combination with Kobayashi's invention for the purpose of improving the image resizing (West et al., column 2, lines 26-27).

8. Claims 29, 10, 22, 12, 24 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi in view of West et al.

Kobayashi (US Patent Number 6,056,408) teaches the salient features of the present invention as explained above, except a vertical scalar to vertically scale the image; and a horizontal scalar to horizontally scale the image.

West et al. (US Patent Number 6,339,434 B1) disclose a vertical scalar (Figure 11, element 21) to vertically scale the image; and a horizontal scalar (Figure 11, element 22) to horizontally scale the image.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to vertically and horizontally scale the image as shown by West et

al. in combination with Kobayashi's invention for the purpose of improving the image resizing (West et al., column 2, lines 26-27).

9. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi in view of West et al.

Kobayashi (US Patent Number 6,056,408) teaches the salient features of the present invention as explained above, except a controller that sets scalar registers.

West et al. (US Patent Number 6,339,434 B1) disclose a controller (Figure 11, element 100) that sets scalar registers (column 8, lines 11-17).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a controller that sets scalar registers as shown by West et al. in combination with Kobayashi's invention for the purpose of improving the image resizing (West et al., column 2, lines 26-27).

10. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi in view of West et al.

Kobayashi (US Patent Number 6,056,408) teaches the salient features of the present invention as explained above (see rejection under §102(b)), except vertically scaling the original image responsive to the graphically selecting and aligning by calculating vertical scalar registers and horizontally scaling the original image responsive to the graphically selecting and aligning by calculating horizontal scalar registers (column 10, lines 1-5).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to vertically and horizontally scaling an image as shown by West et



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al. in combination with Kobayashi's invention for the purpose of improving the image resizing (West et al., column 2, lines 26-27).

### ***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sunakawa et al. (US Patent Number 6,310,662 B1) teach a display method and apparatus having distortion correction.

Diamond et al. (US Patent Number 6,963,348 B2) disclose a method and apparatus for display image adjustment.


12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Magda Cruz whose telephone number is (571) 272-2114. The examiner can normally be reached on Monday through Thursday 8:00-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diane Lee can be reached on (571) 272-2399. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read "W B Perkoy".

**William Perkoy**  
**Primary Examiner**

Magda Cruz  
Patent Examiner

October 17, 2006